

STETSSENKO, N.D.

Changes in the conditioned response activity of dogs induced by  
the action of weak impulse currents on the cerebral cortex. *Fiziol.*  
*zhur. [Ukr.]* 2 no.5:35-49 S-O '56. (MIRA 10:1)

1. Institut fiziologii imeni O.O.Bogomol'tsya Akademii nauk URSR,  
laboratoriya biofiziki.

(CONDITIONED RESPONSE) (ELECTROPHYSIOLOGY)  
(CEREBRAL CORTEX)

STATSENKO, M.D. [Statsenko, M.D.]

Changes in brain temperature as affected by weak impulse currents  
and direct current as compared with the action of certain drugs  
[with summary in English]. Fiziolzhur. [Ukr.] 3 no.6:91-101 D '57.  
(MIRA 11:2)

1. Institut fiziologii im. O.O.Bogomol'tsya Akademii nauk URSS,  
laboratoriya biofiziki.

(BRAIN) (ELECTRICITY--PHYSIOLOGICAL EFFECT)

STETSENKO, N.D. [Stetsenko, N.D.]

Comparing electroencephalograms records before and after the  
action of weak pulse currents and direct current on the brain.  
Fiziol. zhur. [Ukr.]4 no.6:730-745 N-D '58. (MIRA 12:3)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, laboratoriya  
biofiziki.

(ELECTROENCEPHALOGRAPHY)

STETSENKO, N.D.

Changes in the functional state of the heart following internal  
irradiation with radioactive phosphorus; electrocardiographic examination.  
Vest. rent. 1 rad. 33 no. 3:66 My-Jn '58 (MIRA 11:8)

1. Institut fiziologii imeni A.A. Bogomol'tsa AN USSR (dir.-chlen-  
korrespondent AN USSR prof. A.M. Vorob'yev), laboratoriya biofiziki  
(zav. - prof. A.A. Gorodetskiy).  
(HEART)  
(PHOSPHORUS--ISOTOPES)

STATSENKO, N.D. [Stetsenko, N.D.]

Changes in the encephalogram recorded during the formation of a  
conditioned reflex and induced by weak impulse currents. Fiziol. zhur.  
[Ukr.] 5 no.5:575-585 8-0 '59 (MIRA 13:3)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, laboratoriya  
biofiziki.

(CONDITIONED RESPONSE) (ELECTROENCEPHALOGRAPHY)

STETSENKO, N. D. Cand Med Sci -- "Study of <sup>the exciting</sup> ~~stimulating~~ and inhibiting effect  
of weak ~~impulse~~ currents upon the nervous system." Kiev, 1960 (Acad Sci UkSSR  
Department of Biol Sci). (KL, 1-61, 211)

-437-

STETSENKO, N.D. [Stetsenko, M.D.]

Changes in the pneumogram and electrocardiogram resulting from the  
action of weak pulse currents on the brain. Fiziol. zhur. [Ukr.]  
7 no.2:187-196 Mr-Apr '61. (MIRA 14:4)

1. Biophysics Laboratory of the A.A.Bogomoletz Institut of  
Physiology of the Academy of Sciences of the Ukrainian S.S.R.,  
Kiev.

(ELECTROPHYSIOLOGY)  
(RESPIRATION)

(CEREBRAL CORTEX)  
(HEART)

STETSENKO, Nikolay Dem'yanovich[Stetsenko, M.D.]; RUCHKOVSKIY,  
B.S.[Ruchkovs'kyi, B.S.], red.

[Effect of weak impulse currents on the brain] Diia na  
mozok slabkykh impul'snykh strumiv. Kyiv, Vyd-vo AN  
UkrSSR, 1963. 195 p. (MIRA 17:9)



MIRKIN, Zinoviy Samoylovich; ~~STETSSENKO, Nikolay Michaylovich~~; TEPLYAKOV, A.,  
redaktor; ZELENIKOVA, Ye., tekhnicheskij redaktor

[Manual for painters and finishers] Pamiatka maliara-al'freishchika.  
Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1957. 543 p.  
(Painting, Industrial) (MLR 10:10)  
(House decoration, Industrial)

1. N. M. STETSENKO, Eng.
2. USSR (600)
4. **Agricultural Exhibitions**
7. Experience with the construction of a residential settlement for the Ukrainian Agricultural Exhibit at Kiev. Biul. stroi. tekhn. 9 no. 23. 1952.

PROTSENKO, D.F. [Protsenko, D.P.]; SIRENKO, L.A.; STETSENKO, N.M.

Photosynthetic processes and frost resistance of plants. Visnyk.  
Kyiv. un. no.4. Ser. biol. no.2:16-27'61. (MIRA 16:6)  
'PHOTOSYNTHESIS) (PLANTS—FROST RESISTANCE)  
(APPLE—VARIETIES)

GOLINSKAYA, Ye.L. [Holyns'ka, IE.L.]; STETSENKO, N.M.

Physiological and biochemical characteristics of parental and  
hybrid forms of corn. Visnyk Kyiv.un. no.5. Ser.biol. no.2:  
36-43 '62. (MIRA 10:5)  
(HYBRID CORN)

GOLYKOV, Y. .; GRECHENKO, Y.M.; YEREMEN, S.N.; STETSSENKO, N.M.

Physiological and biochemical characteristics of the vegetative  
and generative organs of corn in connection with heterosis.  
Fiziol. rast. 12 no.3:440-452 My-Je '65. (MIRA 18:10)

L. National'noy genetiki i fiziologii rasteniy Kiyevskogo gosudarst-  
vennogo universiteta.

15-57-3-3385

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,  
p 134 (USSR)

AUTHORS: Rlyumen, L. M., Stetsenko, N. N., Zakhar'yants, O. N.

TITLE: Glazed Ceramic Facing Tile Made From Local Raw Material  
(Oblitsovochnyye glazurovannyye keramicheskiye plitki  
na baze mestnogo syr'ya)

PERIODICAL: Tr. In-ta antiseysmich. str-va AN SSSR, 1956, Nr 1,  
pp 74-104

ABSTRACT: Clay and sandy clay deposits near Ashkhabad were tested  
for possible use in the manufacture of facing tile.  
The chemical compositions of the initial clays are given  
in the Table (in percents). Usually ground limestone or  
chalk in quantities of 25 to 30 percent is introduced  
into the ceramic paste. Local sandy clays rich in car-  
bonates are therefore used for their marl-producing  
effect (producing leanness). The Kalininskiye gliny (clays)  
might be used as the source of supply for the manufac-

Card 1/2

STETSENKO, N. T.

20878. Tayashenko, P. S. i Stetsenko, N. T. Tridtsat' let sobetskogo svekloseyaniya  
Sbornik nauk rabot (Vsesoyuz. nauch. -issled. in-t sakhar. svekly) Kiyev-khar'kov,  
1948, s. 3-9.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

BERKOVSKIY V.S., inzh.; OSADCHIIY, A.N., inzh. Prinimali uchastiye: STETSENKO,  
H.V.; LOBAREV, M.I.; AVILONIN, P.M.; SHALINOV, M.I.; IVANISHKIN, A.Ya.;  
OVECHKIN, V.I.; POVETKIN, G.I.; SHEVERDIN, V.I.

Grooving for the rolling of strip with acute angles. Stal' 23 no.7:  
627-631 JI '63. (MIRA 16:9)  
(Rolling (Metalwork)) (Rolls (Iron mills))



POLUKHIN, P.I., BERKOVSKIY, V.S.; OSADCHIY, A.N., ~~SIETSENKO, N.V.~~;  
AVRUNIN, P.M.; IVANKIN, Yu.I.

Oval and edged oval system of roll passes on tandem light  
section mills for rolling high alloy steel. Stal' 15  
no.4:337-341 Ap '65. (MIRA 18:11)

1. Moskovskiy institut stali i splavov i Zavod "Dneprospetsstal".

KARASEV, V. K., kand. tekhn. nauk, dotsent; Prinimali uchastiye:  
STETSENKO, N. Yu., student; SHADRINA, V. I., student

Method of increasing the wear resistance of pattern edges.  
Izv. vys. ucheb. zav.; tekhn. leg. prom. no. 4:139-143 '62.  
(MIRA 15:10)

1. Leningradskiy tekstil'nyy institut imeni S. M. Kirova.  
Rekomendovana kafedroy tekhnologii shveyrnogo proizvodstva.

(Garment cutting)

9.9300 (1036)

24384  
S/142/60/005/011/015  
E192/E392

AUTHORS: Sazonov, A.I. and Stetsenko, O.A.

TITLE: Dependence of the Radio Refraction Angle on the Wavelength During Formation of Elevated Tropospheric Waveguides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Vol. 3, No. 5, pp. 515-516

TEXT: Investigation of the radiowave refraction angle in the troposphere is of importance in the determination of the errors of the positions of targets in space. The angle of reflection was determined by the methods of geometrical optics in a number of works (Ref. 1 - A.V. Shabel'nikov - Radiotekhnika i elektronika, 1956. Vol. 1, No. 3, p. 277; Ref. 2 - D.M. Vysokovskiy - do- p. 274 and Ref. 3 - V.Fannin and K. Dzhen - Voprosy radiolokatsionnoy tekhniki, 1957, Vol. 5, No. 41, p. 164). In this work, the solution of the wave equation with  $\epsilon$ -profiles approximated by the non-symmetrical Epstein model is used for determining the dependence of the refraction angle on the wavelength and the

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S/142/60/003/005/011/015  
E192/E382

Dependence of the ....

parameters of the elevated waveguide provided that the position angles of the target are small and that the target is situated in the centre of the waveguide or above it. It is known that during an inclined incidence of an electromagnetic wave onto the layer whose permittivity as a function of height is given by

$$\epsilon(z) = \epsilon_1 + (\epsilon_2 - \epsilon_1) \frac{e^{\xi}}{1 + e^{\xi}} + \epsilon_3 \frac{e^{\xi}}{(1 + e^{\xi})^2}, \quad (1)$$

the expression for the refracted wave is in the form (Ref. 4 - P.S. Epstein - Proc. of the National Academy of Sciences, 1930, Vol. 16, No. 10, p. 627):

$$E_{np} = e^{ikpx + kxz/s} (1 + e^{kz/s})^d F_1(a + b + d, a - b + d, 2a + 1, e^{-kz/s}). \quad (2)$$

where  $\xi = kz/s$ ,  $s$  being a parameter which expresses the thickness of the layer in  $\lambda/2\pi$  units. In Eq. (2):

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S/142/60/003/005/011/015  
E192/E382

Dependence of the ....

$$a = is\sqrt{\epsilon_1} \cos \varphi = ia_1, \quad b = is\sqrt{\epsilon_2 - \epsilon_1 \sin^2 \varphi}.$$

$$d = \frac{1}{2} - \frac{1}{2} \sqrt{1 + 4s^2 \epsilon_3}$$

which of the hypergeometric equation  
are the parameters/and  $\varphi$  is the glancing angle. In  
general, it is sufficient to consider only the first two  
terms of the series so that the equation for the phase front  
can be written as:

$$\Phi(x, z) \approx K\sqrt{\epsilon_1} x \sin \varphi + K\sqrt{\epsilon_1} z \cos \varphi + \\ + \arctg \frac{2a_1(b_1^2 + d^2 - a_1^2 - d)}{(1 + 4a_1^2)e^{-4d/s} + a_1^2 - b_1^2 - d^2 - 4a_1^2 d} \quad (3).$$

Since the medium is isotropic, the direction of the ray  
corresponds to the direction of the normal to the wave surface.  
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E192/E382

Dependence of the ....

The angle of the tangent to the ray can be found from:

$$\operatorname{tg} \beta = \left( \frac{\Phi'_z}{\Phi'_x} \right)_{x_0, z_0} \quad (4)$$

where  $x_0$  and  $z_0$  denote partial derivatives. This angle can thus be expressed by:

$$\operatorname{tg} \beta \approx \left( 1 + \frac{2s^2 (\epsilon_2 - \epsilon_1 + \epsilon_3) (1 + 4s\epsilon_1 \cos^2 \varphi) e^{-kz_0}}{(1 + 4s^2 \epsilon_1 \cos^2 \varphi) \left( e^{-kz_0} + \frac{1}{2} \sqrt{1 + 4s^2 \epsilon_3 - \frac{1}{2}} \right) - s^2 (\epsilon_2 - \epsilon_1 + \epsilon_3)^2} \right) \quad (5)$$

The above expression determines the relationship between the angle  $\beta$  and the parameters of the non-symmetrical layer of the Epstein type, the wavelength and the glancing angle. The total refraction angle is:

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S/142/60/003/005/011/015  
E192/E382

Dependence of the ....

$$\alpha \approx \frac{1}{2} (\beta - \varphi)$$

(6) .

On the basis of Eqs. (5) and (6) it was possible to calculate curves giving the dependence between the refraction angle and the wavelength for actual  $\epsilon$ -profiles. An example of such a curve is shown in Fig. 1.6 This was calculated for  $\epsilon_1 = \epsilon_2 = 1.000681$ ,  $\epsilon_3 = 48.10^{-6}$  and the layer thickness of 80 m. There are 1 figure and 9 references: 7 Soviet and 2 non-Soviet. The English-language reference: quoted is: Ref. 4 (quoted in text).

ASSOCIATION: Laboratoriya radiofiziki Sibirskogo fiziko-  
tekhnicheskogo NII pri Tomskom gosuniversitete  
im. V.V. Kuybysheva (Radiophysics Laboratory  
of the Siberian Physicotechnical Scientific  
Research Institute of Tomsk State University)

Card 5/6

STETSENKO, O.A.

Compression of an electromagnetic field between two planes.  
Izv. vys. ucheb. zav.; radiotekh. 6 no.6:695-700 M-D '63.

Approximate solution of a wave equation for a resonator  
system with a moving wall. Ibid.:701-704 (MIRA 17:1)

1. Rekomendovana kafedroy teoreticheskikh osnov radiotekhniki  
Moskovskogo energeticheskogo instituta.



000100, 1.1.1.

Transients in waveguide resonators with moving walls.

Izv. vys. ucheb. zav.; radiotekh. 7 no.1:71-80 Jan'64.

(MIRA 17:5)

ZAKHAROVA, M.I.; STETSENKO, P.N.

Magnetic properties and structure of an Fe - V(27%) alloy.

Vest. Mosk. un. Ser. nat., mekh., astron., fiz. khim., 12 no.5:

47-52 '57.

(MIRA 11:9)

1. Kafedra magnetizma Moskovskogo gosudarstvennogo universiteta.

(Iron-vanadium alloys--Magnetic properties)

ZAKHAROVA, M.I.; STETSENKO, P.N.

Phase transformations in Fe-V alloys. Vest. Mosk. un. Ser. mat.,  
mekh., astron., fiz. khim., 12 no.5:53-61 '57. (MIRA 11:9)

1. Kafedra magnetizma Moskovskogo gosudarstvennogo universiteta.  
(Iron-vanadium alloys--Metallography)

STETSENKO, P. N. Cand Phys-Math Sci -- (diss) "Study of magnetic properties and structure during phase transformations in ferrovanadium alloys." Mos, 1958. 7 pp (Mos State Univ im M. V. Lomonosov. Physics Faculty), 100 copies (KL, 13-58, 93)

-13-

67807

SOV/180-59-5-24/37

AUTHORS: Zakharova, M.I., Semenova, L.A., and Stetsenko, P.N.  
(Moscow)

TITLE: Phase Transformations in the System Iron-Vanadium

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 5, pp 135-138 (USSR)

ABSTRACT: The deterioration of the properties of Fe-V alloys which follows the separation of the  $\sigma$ -phase on cooling has attracted considerable attention. In the present work an investigation was made of the structure of alloys of Fe with 27 and 47.7 weight % V after annealing followed by hardening from various temperatures. X-ray and microscopic analysis and measurement of magnetic properties were used. Both alloys were found to have a two-phase structure, the quantity of second phase being greater for a 1400 than a 1250 °C hardening temperature. The magnetic properties likewise indicate (Figs 1 and 2 show these as functions of temperature for various conditions), that the two-phase is the equilibrium structure at temperatures above the  $\alpha$ - $\sigma$  transition point. X-ray analysis pointed to the existence of a new phase, rapidly disappearing at 975 °C. The authors studied ✓

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Phase Transformations in the System Iron-Vanadium

conditions for the formation of this new ( $\beta$ ) phase. The quantity of  $\alpha$ -phase in the 47.7 and 27% V alloy was found by Nechvolodov's method to be 35 and 10% respectively. The magnetic properties of the low- and high-vanadium alloys annealed at 1350 °C for 60 hours are shown as functions of temperature in Figs 3 and 4, respectively. The work shows that there are two polymorphic changes ( $\beta$ - $\alpha$  and  $\alpha$ - $\sigma$ ) in the Fe-V alloys, both proceeding slowly in the 1000-1300 °C range. The  $\beta$ -phase has a Curie point of about 200 °C and crystallizes in a cubic face-centered lattice. There are 4 figures.

Card  
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ASSOCIATION: Otdeleniye stroeniya veshchestva. fizicheskogo  
fakul'teta MGU  
(Structure of Matter Department, Faculty of Physics,  
MGU)

SUBMITTED: March 28, 1958

STETSENKO, P. N., AVKSENTYEV, J.,

"Effective Internal Fields on Nuclei of the Antiferromagnetic Transition Metals"

report presented at the Symposium on Ferroelectricity and Ferromagnetism,  
Leningrad, 30 May-5 June 1963

STERNBERG, I. M.: *Abstract*, p. 1.

"The effective internal fields on nuclei of some transition metals and their alloys."

report submitted for Intl Conf on Magnetism, Nottingham, UK, 6-13 Sep 64.

Moscow State Univ.



L 11952-65 EWT(3)/EPA(s)-2/EWT(m)/EWP(t)/EWP(h) Pt-10 IJP(c)/AEDC(a)/  
 ASD(m)-3/AFWL/AS(mp)-2/ASD(a)-5/SSD/RAEM(a)/ESD(gs)/ESD(t) JD/GG  
 ACCESSION NR: AP4046390 8/0056/64/047/003/0806/0811

AUTHORS: Stetsenko, P. N.; Avksent'yev, Yu. I.

TITLE: Effective magnetic fields at the nuclei of antiferromagnetic transition metals B  
2

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 3, 1964, 806-811

TOPIC TAGS: antiferromagnetism, nuclear magnetic field, transition metal, manganese, chromium, magnetic moment, electron spin, specific heat, hyperfine structure, magnetic cooling

ABSTRACT: A method was developed for measuring the specific heat in the region of very low temperatures, for the purpose of determining the mutual correlation between the local magnetic field at a nucleus and the field due to spontaneous magnetization in a ferromagnetic substance. The method was used to investigate the effective

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ACCESSION NR: AP4046390

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magnetic fields at the nuclei of manganese and chromium, which have an ordered distribution of the d- or f-electron spins, but not a spontaneous magnetic moment. The effective field was determined by measuring the nuclear specific heat. Both metals exhibit considerable hyperfine interaction. The method employs magnetic cooling, and the specific heat is determined in it not from a sudden temperature rise due to receipt of a certain amount of energy, but from the rate of continuous change of temperature following application of a known amount of power. The equipment is described in detail. The results show the effective field intensity to be 150 kOe at the manganese and chromium nuclei, respectively. The results agree well with those obtained by others. "The authors are deeply grateful to Ye. I. Kondorskiy for continuous interest in the work and for valuable remarks." Orig. art. has: 5 figures and 5 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

Card 2/5

L 11952-65

ACCESSION NR: AP4046390

SUBMITTED: 25Mar64

ENCL: 02

SUB CODE: MM, EM

NR REF SOV: 001

OTHER: 005

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L 11952-65

ACCESSION NR: AP4046390

ENCLOSURE: 01

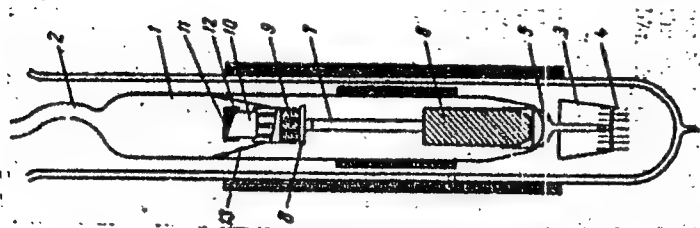


Fig. 1. Construction of calorimeter.

1 - Glass ampoule, 2 - glass tube for filling with helium, 3 - ground glass stopper, 4 - current leads, 5 - salt block holder, 6 - cooling salt, 7 - cold pipe, 8 - sample holder, 9 - superconducting jumpers, 10 - sample, 11 - thermometer, 12 - heater, 13 - centering whiskers

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L 11952-65

ACCESSION NR: AP4046390

ENCLOSURE: 02

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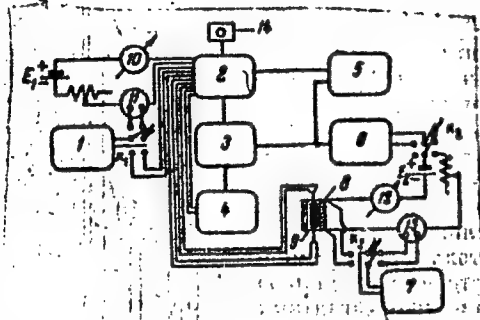


Fig. 2. Block diagram of measuring set-up.

1 - Potentiometer, 2 - commutation block,  
3 - scaler, 4 - generator, 5 - scaler,  
6 - scaler, 7 - potentiometer, 8 - sample,  
9 - thermometer, 10, 12 - microammeter,  
11, 13 - standard resistor, 14 - commutation  
block starter, k - switch

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L 23139-66 EWT(1)/EWT(m)/EWP(w)/T/EWP(t) — JD

ACC NR: AP6001588

(N)

SOURCE CODE: UR/0120/65/000/006/0178/0183

AUTHOR: Stetsenko, P. N.; Avksent'yev, Yu. I.

ORG: Physical Faculty, MGU (Fizicheskiy fakul'tet MGU)

TITLE: Outfit for measuring the specific heat of metals and alloys at very low temperatures

SOURCE: Pribery i tekhnika eksperimenta, no. 6, 1965, 178-183

TOPIC TAGS: specific heat, low temperature specific heat, calorimeter, metal, temperature instrument, heat measurement

ABSTRACT: <sup>21. FIVE</sup> An outfit is described for measuring specific heat of metals and alloys at 0.20–1.5K, the temperatures below 1K being achieved by adiabatic demagnetization of a lump of a paramagnetic salt which contacts the test specimen. The specific heat was measured by determining the rate of temperature variation for a known supplied power. A glass calorimeter (see figure below) was used in the measurements. Vial 1 exhausted through tubing 2 is closed by glass block 3 carrying electrical lead-ins. Block 6 held by support 5 is made from chromium-potassium

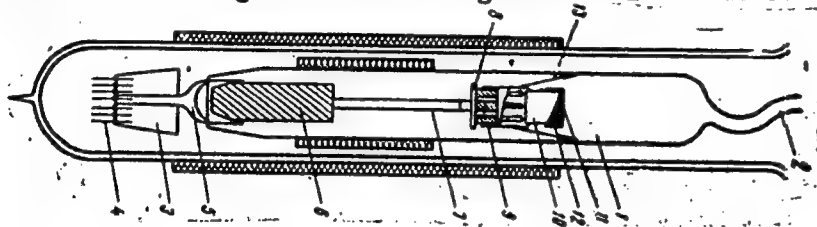
Card 1/2

UDC: 536.631:536.483

L 23139-66

ACC NR: AP6001588

alum. Other parts: 7 - cool duct; 8 - specimen holder; 9 - superconducting bridge; 10 - specimen; 11 - thermometer; 12 - heater; 13 - centering quartz guys. A special electronic device with a sensitivity of  $5 \times 10^{-6}$  K/cps was developed for recording the temperatures involved (circuit diagrams and some data supplied); see B. Sandlin et al., Rev. Sc. Instr., 1959, v. 30, p. 659. An electronic switch was used for measuring time intervals and automatically switching the circuits. Specific heat of molybdenum vs. temperature (0.3—1.1K) is reported as an example of measurements (with an error of  $\pm 3\%$ ) made by the above outfit. Orig. art. has: 6 figures and 2 formulas.



Calorimeter for measuring specific heat near 1K temperature

SUB CODE: 20, 14/ SUBM DATE: 09Jan65/ OTH REF: 005

Card 2/2 PB

L 07114-67 EWT(m)/EWP(t)/EII LJP(c) JD/HW  
ACC NR: AP6029108

SOURCE CODE: UR/0048/66/030/006/0952/0963

AUTHOR: Statsenko, P.N.; Avksent'yev, Yu.I.

ORG: Moscow State University im. M.V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Hyperfine interactions in  $Ni_3Mn$  alloy [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.6, 1966, 962-963

TOPIC TAGS: specific heat, nickel alloy, manganese alloy, magnetic field, hyperfine interaction

ABSTRACT: The purpose of the work was to evaluate the effective field at the  $Mn^{55}$  nuclei in  $Ni_3Mn$  alloy with a view towards determining the character of the hyperfine interactions, i.e., the influence of the ambience (nearest neighbors) on the fields at the nuclei in this ordering alloy. The values of the specific heat were determined in the low temperature range from 0.3 to 1.5°K; the lowest temperatures were realized by the technique of demagnetizing a paramagnetic salt in contact with the specimen. The equipment and procedure have been described in an earlier article by the authors (Zhur. eksperim. i teor. fiz., 47, 806, 1964). The specimens were prepared by melting of the components in an atmosphere of argon in an induction furnace. The measurement results ( $C_p$  versus  $T$ ) are presented graphically. It is assumed that at very low temperatures  $C_p = \gamma T + \alpha T^{-2}$ , where  $\alpha$  is the hyperfine interaction constant, for determi-  
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STETSENKO, S., otv. za vypusk

[Results of the carrying out of the state plan for the development of the national economy of the U.S.S.R. in 1959] Pro pidsumky vykonannia derzhavnoho planu rozvytku narodnoho hospodarstva SRSR u 1959 rotsi. [Results of the carrying out of the state plan for the development of the national economy of the Ukrainian S.S.R. in 1959; information of the Central Statistical Administration of the Ukrainian S.S.R.] Pro pidsumky vykonannia derzhavnoho planu rozvytku narodnoho hospodarstva Ukrains'koi RSR u 1959 rotsi; povidomlennia Tsentral'noho statistichnoho upravlinnia pry Rady Ministriv Ukrains'koi RSR. Kyiv, Derzh. vyd-vo polit.lit-ry URSR, 1960. 62 p. (MIRA 13:3)

(Russia--Economic conditions)

STETSENKO, S.Ye.

Semiautomatic pouring of bright petroleum products into a shallow container. Transp. i khran. nefi no. 3:27-28 '63.  
(MIRA 17:7)

1. Moskovskoye upravleniye Glavnogo upravleniya po transportu i snabzheniyu nefi'yu i nefteproduktami RSFSR.

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,  
p 183 (USSR) 14-57-7-15382

AUTHOR: Stetsenko, T.

TITLE: Sheep-Raising in the At-Bashi Rayon, and Means for  
Increasing Its Productivity (Sostoyaniye ovtsevodstva  
Atbashinskogo rayona i puti povysheniya yego produktiv-  
nosti)

PERIODICAL: S. kh. Kirgizii, 1956, Nr 9, pp 20-26

ABSTRACT: The high mountain valleys of the Ak-Say and Arpa  
Rivers occupy approximately 80 percent of the area of  
the region. Sheep-raising represents the main form of  
animal husbandry.

Card 1/1

No name

SALUNSKAYA, N.I.; SHKODENKO, V.I.; ROGACHEV, V.L.; STETSENKO, V.A.;  
AFONINA, A.P.

Spraying against corn smut. Zashch. rast. ot vred. i bol. 6  
no.5:22-23 My '61. (MIRA 15:6)  
(Corn (Maize)—~~Diseases and pests~~)  
(Smuts) (Fungicides)

SHTEYNBUKH, N.V., kand.med.nauk; STETSSENKO, V.D.

Electroencephalographic changes following subarachnoid administration of streptomycin. Probl.tub. 37 no.3:53-59 '59.

(MIRA 12:6)

1. Iz Rostovskogo instituta akusherstva i pediatrii (dir. - kand.med.nauk D.S.Baranovskaya, nauchnyy rukovoditel' - prof. I.Yu.Serebriyskiy, zav. eksperimental'nyy sektorom - deystvitel'nyy chlen AMN SSSR prof. N.A.Rozhanskiy [deceased]).

(STREPTOMYCIN, eff.

on EEG, subarachnoid admin. in animals (Rus))

(ELECTROENCEPHALOGRAPHY, eff. of drugs on, streptomycin, subarachnoid admin. in animals (Rus))

STHTSENKO, V.G.

Powerful electric tractor unit. Biul. nauch.-tekhn. inform. po elek.  
sel'khoz. no.1:24-28 '56. (MIRA 10:9)  
(Tractors)

ZUYEV, V.A.; SAMOYLOVA, T.P.; STETSENKO, V.G.

Self-propelled electric combine for grain. Biul. nauch.-tekhn. po  
elek. s.l'khoz. no.1:29-32 '56. (MIRA 10:9)  
(Combines (Agricultural machinery))

STETSSENKO, V.G., nauchnyy sotrudnik.

Electrification of field work. Nauka i pered. op. v sel'khoz. 6  
no.11:15-21 N '56. (MLRA 10:1)

1. Vsesoyuznyy institut elektrifikatsii sel'skogo khozyaystva.  
(Electricity in agriculture) (Agricultural machinery)



LYUSHIN, M.I. [Liushyn, M.I.], kand. tekhn. nauk.; STETSSENKO, V.I., kand. tekhn. nauk.; MARKOVSKIY, Ye.A. [Markova'skiy, YE.A.], inzh.

Increasing the lifetime of piston parts of the D-54 engine. Mekh. sil'. hosp. 9 no. 8:31-32 Ag '58. (MIRA 11:8)  
(Pistons)

PAKHOMOV, B.P., inzh.; MARKOVSKIY, Ye.A., inzh.; STETSENKO, V.I., kand. tekhn. nauk

Performance of full-flow jet centrifugal oil cleaner of the  
D-14 engine. Trakt. i sel'khoz mash. no. 2:12-14 P '59.  
(MIRA 12:1)

(Tractors--Engines--Oil filters)

MARKOVSKIY, Yevgeniy Adamovich; MOYCHAN, Boris Alekseyevich; ~~STETSSENKO~~  
Vsevolod Ivanovich; SAL'NIKOV, G., vedushchiy redaktor; NOVIK, A.,  
tekhnicheskiy redaktor

[Radioisotopes in metal research] Radioaktivnye izotopy pri issledo-  
vanii metallov. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1956. 87 p.  
(MLRA 9:10)

(Radioisotopes--Industrial applications)  
(Metals)

SOV/137-58-10-21553

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 157 (USSR)

AUTHORS: Seredenko, B.N., Stetsenko, V.I., Markovskiy, Ye.A.

TITLE: Wear-resistance of High-strength Cast Iron Employed in the Manufacture of Tractors (Iznosostoykost' vysokoprochnogo chuguna, primenyayemogo v traktorostroyenii)

PERIODICAL: Nauchn. tr. In-ta mashinoved. i s.-kh. mekhan. AN UkrSSR, 1958, Vol 6, pp 33-52

ABSTRACT: Weighing methods and radioactive isotopes were employed in wear-resistance tests performed on cast iron with spheroidal graphite (CISG) paired with various other types of cast iron and steel. The tests were carried out with and without lubrication under varying specific pressures. A horizontal plateau observed on curves representing the wear of pearlitic cast iron as a function of the specific pressure indicates that within a certain interval the wear is independent of the specific pressure. The fact that wear is not affected by an increase in pressure is attributable to an optimal saturation of friction surfaces with austenite that is formed during friction. For each pair (at a given velocity of friction) there exists a critical loading under

Card 1/2

SOV/137-58-10-21553

Wear-resistance of High-strength Cast Iron (cont.)

which both the nature and the magnitude of wear are altered (the beginning of seizing). Under dry friction, pressures up to  $40 \text{ kg/mm}^2$  (at velocities up to  $1 \text{ m/sec}$ ) and  $25 \text{ kg/mm}^2$  (at a velocity of  $3 \text{ m/sec}$ ) are permissible for components made of CISC with a pearlite or pearlite-ferrite structure. With full lubrication the specific pressures may be increased to  $80 \text{ kg/mm}^2$  (at a velocity of  $1 \text{ m/sec}$ ). Operational tests performed on D-54 Diesel units with crankshafts made of CISC and of steel demonstrated that crank-pin wear is smaller in the case of the CISC crankshafts. The CISC crankshafts contained 15-25 and 40-60% of structural ferrite; the wear of the first group (containing 15-25% ferrite) was found to be somewhat greater than the wear of the second group.

E.Sh.

1. Cast iron--Mechanical properties
2. Cast iron--Testing equipment
3. Radioisotopes--Performance
4. Cast iron--Test results

Card 2/2

MARKOVSKIY, Ye.A.; STETSENKO, V.I.; YAROLOV, I.N.; YAREMCHUK, V.V.; TUROVSKIY, I.Ya.; DROBYAZKO, T.T.

Short reports. Zav.lab. 24 no.4:503-504 '58. (MIRA 11:4)

1. Institut mashinovedeniya i sel'skokhozyaystvennoy mekhaniki Akademii nauk USSR (for Markovskiy and Stetsenko). 2. Zavod sel'skokhozyaystvennogo mashinostroyeniya, g. Stalino (for Yaropolov). 3. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta (for Turovskiy).  
(Testing machines)

21(1,4)

PHASE I BOOK EXPLOITATION

SOV/3315

Movchan, Borys Oleksiyovych, and V. I. Stetsenko

Radioaktyvni izotopy v tekhnitsi (Radioactive Isotopes In Industry)  
kyiv, Derzhtekhvydav URSR, 1959. 183 p. 1,000 copies printed.

Ed.: O. Nimchunova; Tech. Ed.: P. Patsalyuk.

PURPOSE: This book is intended for the staff of industrial laboratories, design bureaus, and scientific research institutes, as well as for specialists in the application of atomic energy for peaceful uses.

COVERAGE: This book deals with the utilization of radioactive isotopes in Soviet and non-Soviet industry during the last decade. It analyzes the nature and properties of radioactive isotopes and suggests working methods as well as accident prevention measures. It treats the utilization of isotopes in measuring apparatus, automation and the control of industrial processes

Card 1/4

3371b  
S/686/61/000/000/009/012  
D207/D303

11730 1434

AUTHORS: Stetsenko, V. I. and Markovskiy, Ye. A.

TITLE: Some features of the state of metal surfaces deformed by friction

SOURCE: Soveshchaniye po voprosam teorii sukhogo treniya i obrabotki povrskh pri sukhom trenii. Riga, 1959, 129-137

TEXT: The authors subjected high-strength cast iron, containing globular graphite, to dry sliding friction and to axial compression and studied the formation of wear-resisting surface layers. X-ray diffractograms, obtained by L. I. Rybak with a YPC-50M (URS-50I) instrument, showed that coherent scattering regions in the surface of cast iron were smaller  $(1.8 - 3.5) \times 10^{-6}$  cm, after dry friction than after axial compression,  $(2.0 - 4.6) \times 10^{-6}$  cm. Block fragmentation increased on increase of pressure during dry friction, irrespective of the actual structure of cast iron. In the

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Some features of ...

33716

S/686/61/000/000/009/012

D207/D303

tion of carbide; this raised the surface hardness and wear resistance. It was also found that dry friction intensified diffusion in surface layers of one metal and between surfaces of two metals in friction. The surface layers produced by dry friction had a fine-grain structure with occlusions at least 100 times smaller than those present initially in cast iron. There are 6 figures and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: C. S. Barrett, Phys. Rev., 72, 3, 1947; R.P. Agarwala and H. Wilman, Proc. Roy. Soc., A, 223, 1954.

ASSOCIATION: Institut liteynogo proizvodstva AN USSR (Institute of the Foundry Industry, AS UkrSSR)

Card 3/3

PHASE I BOOK EXPLOITATION

SOV/5053

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Iznos i iznosostoykost'. Antifriktsionnyye materialy (Wear and Wear Resistance. Antifriction Materials) Poscon, Izd-vo AN SSSR, 1960. 273 p. Karta slip inserted. 3,500 copies printed. (Series: It's: Trudy, v. 1)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Ed.: M. M. Krushchov, Professor; Eds. of Publishing House: M. Ya. Klebanov, and S. L. Orpik; Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection published by the Institut mashinovedeniya, AN SSSR (Institute of Science of Machines, Academy of Sciences SSSR) contains papers presented at the III Vsesoyuznaya Konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in 5 main areas: 1) Hydrodynamic Theory of Lubrication and Friction Bearings (Chairman: Ye. M. Gut'yar, Doctor of Technical Sciences, and A. E. D'yachkov, Doctor of Technical Sciences); 2) Lubrication and Lubricant Materials (Chairman: O. V. Vinogradov, Doctor of Chemical Sciences); 3) Dry and Boundary Friction (Chairman: B. V. Deryagin, Corresponding Member of the Academy of Sciences SSSR, and A. V. Kragelskiy, Doctor of Technical Sciences); 4) Wear and Wear Resistance (Chairman: M. M. Krushchov, Doctor of Technical Sciences); and 5) Friction and Antifriction Materials (Chairman: I. V. Kragelskiy, Doctor of Technical Sciences), and M. M. Krushchov, Doctor of Technical Sciences, and Chairman of the general assembly (on the first and last day of the conference) was Academician A. A. Blagonravov. L. Yu. Prukhanov, Candidate of Technical Sciences, was scientific secretary. The transactions of the conference were published in 3 volumes of which the present volume is the first. This volume contains articles concerning the wear and wear resistance of antifriction materials. Among the topics covered are: modern developments in the theory and experimental science of wear resistance of materials, specific data on the wear resistance of various combinations of materials, methods for increasing the wear resistance of certain materials, the effects of friction and wear on the structure of materials, the mechanics of the seizing of metals, the effect of various types of lubricating materials on seizing, abrasive wear of a wide variety of materials and components under many different conditions, modern developments in antifriction materials, and the effects of finish machining on wear resistance. Many personalities are mentioned in the text. References accompany most of the articles.

Misharin, Yu. A. and A. V. Sivukova. Laboratory Investigation of the Antifriction Stability of Several Materials Used in Worm Gears

170

Semenov, A. P. Problems in the Theory of the Seizing of Metals

174

Semenov, A. P. Comparative Estimate of the Antifriction Properties of Materials and Their Combinations

184

3. Abrasive Wear. Wear Under Special Conditions of Friction

Barborod'ko, M. D. Wear of Steel and Bronze at High Specific Contact Pressures in the Presence of Organic and Inorganic Lubricants and an Abrasive

191

Vasilenko, A. A., V. I. Stetsenko, and Ye. A. Barkovskiy. Investigation of the Wear Resistance of Highly Durable Cast Iron

201

Card 8/13

7

S/137/62/000/003/001/191  
A006/A101

AUTHOR: Stetsenko, V. I.

TITLE: The use of radioactive isotopes in metallurgy

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 3, abstract 3A2  
(V sb. "Goryachaya obrabotka metallov, no. 2," Kiyev, AN UkrSSR,  
1960, 128-134)

TEXT: Two methods are indicated for the use of radioactive isotopes, namely in the form of marked atoms and of a source of penetrating radioactive radiation. Radioactive isotopes in the form of a radiation source are used in radioactive instrument building and gamma flaw-detection. The author analyzes the use of radioactive isotopes to determine the wear of refractory masonry in metallurgical furnaces (in particular in blast furnaces), the thickness of rolled sheet metal (in particular steel and aluminum) and to mark rolled steel. The author notes the use of gamma-flaw detection for the quality control of the properties of metal castings for the purpose of determining shrinkage cavities and slag inclusions.

[Abstracter's note: Complete translation]

V. Oparysheva

Card 1/1

MARKOVSKIY, Yevgeniy Adamovich[Markovs'kyi, IE.A.]; STETSENKO, Vsevolod  
Ivanovich; BRAUN, M.P., doktor tekhn. nauk, otv. red.;  
PYECHKOVSKAYA, O.M.[Piechkovs'ka, O.M.], red. izd-va; LIBERMAN ,  
T.R., tekhn. red.

[Application of radioactive isotopes for testing internal-  
combustion engines] Zastosuvannia radioaktyvnykh izotopov dlia  
doslidzhennia dvyhuniy vnutrishn'oho zhoriannia. Kyiv, Vyd-vo  
Akad. nauk URSR, 1961. 45 p. (MIRA 15:3)

(Gas and oil engines—Testing)

(Radioisotopes—Industrial applications)

S/126/61/011/002/018/025  
E193/E483

AUTHORS: Markovskaya, L.I., Markovskiy, Ye.A., Stetsenko, V.I.  
and Chernyy, V.G.

TITLE: The Effect of Friction and Plastic Deformation on the  
Fine Structure of High-Strength Cast Iron

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.2,  
pp.296-301

TEXT: Pearlitic and ferritic cast irons, containing (wt.%)  
3.64 C, 2.42 Si, 0.60 Mn, 0.045 P, 0.0322 S, 0.19 Cr and  
0.96 Mg, were used in the present investigation. Cylindrical  
specimens were subjected to uniaxial compression to attain  
deformation ranging from 7 to 75%, the effect of deformation on  
the distortions of the second type ( $\Delta a/a$ ) and on the size  $D$  of  
the regions of coherent scattering of X-rays was studied. In  
addition, the effect of sliding friction (at a constant speed of  
3.25 m/sec.) on these characteristics was studied. The results  
are reproduced graphically in Fig.1 and 2. In Fig.1, the degree  
of lattice distortion of the second type ( $\Delta a/a \cdot 10^{-3}$ , right-hand  
scale) and the dimension of the mosaic blocks ( $0 \cdot 10^{-6}$  cm, left-  
hand scale) are plotted against the degree (%) of deformation,  
Card 1/3

S/126/61/011/002/018/025  
E193/E483

The Effect of Friction ...

curves 1 and 2 relating to pearlitic and ferritic cast irons, respectively. In Fig.2,  $\Delta a/a$  and  $D$  are plotted against the specific pressure ( $\text{kg/cm}^2$ ) applied during the friction tests on pearlitic (curve 1) and ferritic (curve 2) cast irons. It has been established that both uniaxial compression and friction loads cause considerable distortion of the crystal lattice and bring about a decrease in the size of the mosaic blocks in the matrix, each effect being more pronounced in the pearlitic cast iron. Similarly, microhardness of pearlitic cast iron, subjected to either type of deformation, is higher than that of the ferritic alloy. In the surface layers of specimens of both types of cast iron, subjected to friction loading, a transformation takes place, as a result of which austenite is formed and the quantity of cementite in the alloy increases, the content of both these phases increasing with increasing magnitude of the applied pressure. It was concluded that the results of the present investigation can be used to evaluate the resistance to deformation of materials operating under friction loads. There are 4 figures, 2 tables and 2 Soviet references.

Card 2/3

The Effect of Friction ....

S/126/61/011/002/018/025  
E193/E483

ASSOCIATION: Institut liteynogo proizvodstva AN UkrSSR  
(Institute of Foundry Production AS UkrSSR)

SUBMITTED: June 8, 1960

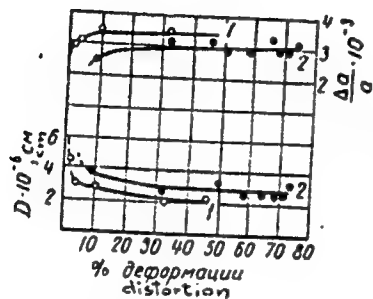


Fig. 1.

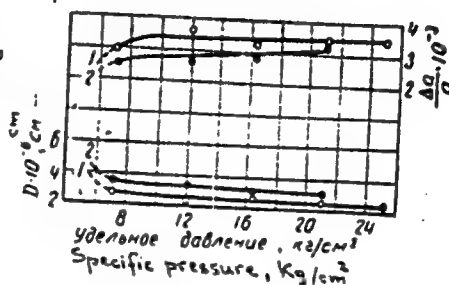


Fig. 2.

Card 3/3

DEM'YANENKO, T.P.; STETSENKO, V.I., kand. tekhn. nauk

Third Ukrainian Conference on "Nuclear physics and applications  
of atomic energy." Avtom. i prib. no.1:81-82 JF-Mr '65.  
(MIRA 18:8)



L 15122-65 EWT(m) DIAAP/RAEM(e)/ESD(t)/ESD(gs)/BSD/ASD(a)-5/AS(mp)-2 DM  
ACCESSION NR: AP4045338 S/0089/64/017/003/0224/0225

AUTHOR: Kutovoy, V. I. ; Stetsenko, V. I. B 19

TITLE: Dependence of the linear absorption coefficient of gamma radiation from  $\text{Co}^{60}$  on temperature of the absorbing metal

SOURCE: Atomnaya energiya, v. 17, no. 3. 1964, 224-225

TOPIC TAGS: gamma radiation,  $\text{Co}^{60}$ , gamma radiation absorption coefficient, temperature effect, gamma ray absorption

ABSTRACT: The change of the metal temperature produces changes in the absorption of gamma radiation, mainly because of density changes. This dependence was measured by the authors for the gamma radiation from  $\text{Co}^{60}$  in a wide range of temperatures: from 20C to the boiling points of Al, Zn, Cd, Sn, Pb and B the total change of  $\mu$  in this range is between 10 to 30%. There is a discontinuity of  $\mu$  at the melting point (a sharp drop). There is a further continuous drop in the liquid metal. Orig. art. has: 2 figures.

Card 1/2

L 15122-65

ACCESSION NR: AP4045338

ASSOCIATION: None

SUBMITTED: 14Nov63

ENCL: 00

SUB CODE: NP, TD

NO REF SOV: 002

OTHER: 002

Card 2/2

L 1903-66 EWT(d)/EPA(s)-2/EWT(m)/EPF(n)-2/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/  
EWP(1) DIAAP JD/WV/JG  
ACCESSION NR: AP5024167

UR/0115/65/000/008/0017/0020  
536.5:669-154

AUTHOR: Kutovoy, V. I.; Stetsenko, V. I.

TITLE: Temperature monitoring of liquid metals by the radioisotope method

SOURCE: Izmeritel'naya tekhnika, no. 8, 1965, 17-20

TOPIC TAGS: liquid metal, temperature measurement, gamma ray absorption

ABSTRACT: The paper presents a radioisotope method for continuous contactless determination of the temperature of a liquid metal from the change in the absorption of gamma rays by the metal. The method involves the measurement of the change in the linear coefficient of gamma ray absorption  $\Delta \mu$  in a container where the thickness of the molten metal is kept constant in the zone of measurement. The applicability of the radioisotope method is determined from the change in the linear attenuation coefficient on heating the molten metal 100C between the melting point  $t_{mp}$  and the boiling point  $t_{bp}$

$$\frac{\Delta \mu}{200 n}, \text{ where } n = \frac{t_{bp} - t_{mp}}{100^\circ \text{C}}$$

$\Delta \mu$  being the change in the linear absorption coefficient as the temperature is

Card 1/2

L 1903-66  
ACCESSION NR: AP5024167

raised from  $t_{mp}$  to  $t_{bp}$ . The higher the value of  $\frac{\Delta \mu''}{20^{\circ}n}$ , the greater is the temper-

ature sensitivity of the radioisotope instrument. After  $\Delta \mu''$  has been measured, the thickness of the metal in the zone of measurement being constant, the temperature of the molten metal can be determined from the change in the ratio of intensity of the recorded radiation at the temperature studied,  $I_t$ , to the intensity of the radiation recorded at the melting point  $I_{t_{mp}}$ . A scintillation instrument for continuous contactless monitoring of the temperature of molten metals is described. Orig. art. has: 4 figures, 2 tables, and 2 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: PM, TD, M

NO REF SOV: 003

OTHER: 000

Card 2/2

L 5156-66 ENT(1)/EWA(h)/ETC(m) DIAAF WM

ACC NR: AP5025051

SOURCE CODE: UR/0286/65/000/016/0091/0092

AUTHORS: Iogansen, V. S.; Steblovskiy, I. A.; Stetsenko, V. I.; Ivanov, A. M.

ORG: none

TITLE: Radioisotopic level gage. Class 42, No. 173972

SOURCE: <sup>19</sup>Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 91-92

TOPIC TAGS: radiation detector, radioisotope, radiation source, electric circuit

ABSTRACT: This Author Certificate presents a radioisotopic level gage with a mobile source, a receiver of ionizing radiation, and a follow-up system. To increase the range of measurement oscillation level, an open trolley system is included, along the direction of movement of the radiation receiver. The trolley system consists of two cables (or wires) and two current extractors forming a connection between the radiation detector and the following electric circuit (see Figure 1).

Card 1/2

UDC: 681.128.6

09010269

L 5156-66

ACC NR: AP5025051

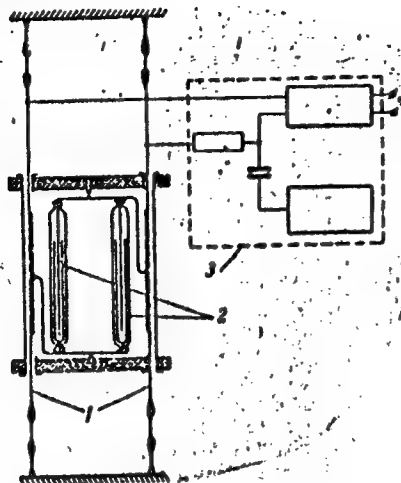


Fig. 1.

1- wires; 2- radiation detector;  
3- electric circuit

Orig. art. has: 1 figure.

SUB CODE: NP, EC/

SUBM DATE: 17Apr63

Card 2/2 MD

L 9/22-66

DM

ACC NR: AP5022646

UR/0089/65/019/002/0203/0203  
539.121.73:539.166

38  
B

AUTHOR: Kutovoy, V.I.; Stetsenko, V.I.

TITLE: Linear absorption coefficient of gamma radiation from Co<sup>60</sup> and Cs<sup>137</sup> in alloys

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 203

TOPIC TAGS: gamma radiation, gamma ray absorption, absorption coefficient, LEAD ALLOY

ABSTRACT: The dependence of the coefficients of absorption of gamma rays on the content of lead in the alloys of Pb-Bi and Pb-Sn types. The results of experiments are represented in two graphs (see Enclosure). The curves show how the relative value of linear absorption coefficient varies with the Pb-content in Pb-Bi and Pb-Sn alloys.

ASSOCIATION: none

SUBMITTED: 22Sep64

ENCL: 01

SUB CODE: NP

NO REF SOV: 001

OTHER: 001

Card 1/2

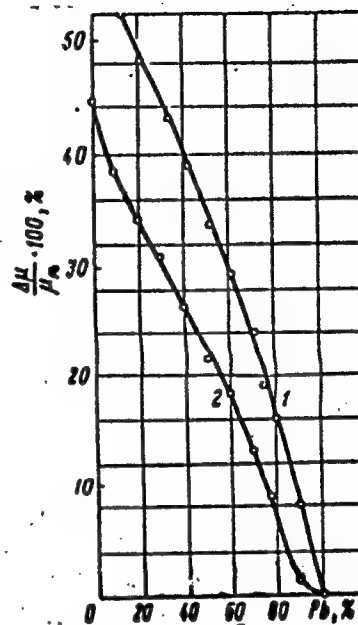
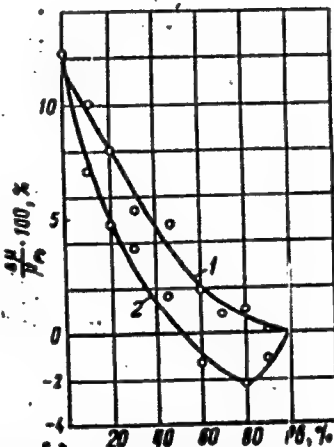
L 9422-66

ACC NR: AP5022646

Relative change of the linear absorption coefficient of gamma radiation from Co-60 and Cs-137 in the dependence of the lead content of the alloys Pb-Bi (a) and Pb-Sn (b):

1-gamma radiation of Cs<sup>137</sup>

2-gamma radiation of Co<sup>60</sup>



Card

2/2

nds



LIVSHITS, Leonid Yakovlevich, inzh.; KIRILYUK, Leonid Vasil'yevich,  
inzh.; GERCHIKOV, David Solomonovich, kand. tekhn. nauk,  
STETSENKO, V.I., kand. tekhn. nauk, retsenzent

[Manual on the installation of radio-isotope relay devices  
in industry] Posobie po ustanovke radioizotopnykh releinykh  
priborov v promyshlennosti. Kiev, Tekhnika, 1965. 95 p.  
(MIRA 18:12)

STETSENKO, V.M., student 6-go kursa

Changes in blood proteins in rheumatic fever in children. Ped., akush.  
i gin. 19 no.5:32-36 '57. (MIRA 13:1)

1. Kafedra gosspital'noy pediatrii (zav. - chlen-korrespondent AMN SSSR  
prof. O.M. Khokhol) Kiyevskogo ordena Trudovogo Krasnogo Znameni medi-  
tsinskogo instituta im. akad. A.A. Bogomol'tsa (dir. - prof. Ye.F.  
Shamray).

(RHEUMATIC FEVER)

(BLOOD PROTEINS)

GUPALENKO, A.M.; TARAN, G.K.; STETSENKO, V.M.

Hystriehosis of domestic ducks in inlets of the lower Dniester.  
Veterinariia 35 no.4:45-48 Ap '58. (MIRA 11:3)

1. Nachal'nik otdela veterinarii Odesskogo oblupravleniya sel'-  
skogo khozyaystva (for Gupalenko). 2. Direktor oblastnoy vet-  
baklaboratorii (for Stetsenko). 3. Zaveduyushchiy parazitologi-  
cheskim otdelom oblvethaklaboratorii (for Taran).  
(Dniester Valley--Ducks--Diseases and pests)

TANTSUYA, Ye.M., dotsent; STATSENKO, V.N.

Case of aortic atresia in a child. Vrach. delo no.10:136-140 0 '61.  
(MIRA 14:12)

1. Kafedra gosspital'noy pediatrii (zav. - prof. chlen-korrespondent  
AMN SSSR Ye.N.Khokhol i kafedra patologicheskoy anatomii (zav. -  
prof. Ye.I.Chayka) Kiyevskogo meditsinskogo instituta.  
(AORTA--DISEASES)

KUDENKO, A.A.; STETSENKO, V.P.

Role of volcanism in the formation of sedimentary-effusive  
and sedimentary layers. Trudy Lab. paleovulk. Kazakh. gos.  
un. no.56:231-234 '63. (MIRA 16:6)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo  
syr'ya Ministerstva geologii i okhrany neдр Kazakhskoy SSR i  
Yuzhno-Kazakhstanskoye geologicheskoye upravleniye.  
(Volcanoes) (Petrology)

KUDENEC, A.A.; STETSENKO, V.P.

Role of volcanism in the formation of sedimentary rocks. Trudy  
Lab. paleovulk. Kazakh. gos. un no.2:73-84 '63.

Connection of some ore deposits of the Western Carpathians with  
volcanic processes. Ibid.:239-247

(MIRA 17:11)

1. Kazakhskiy institut mineral'nogo syr'ya i Yuzhno-Kazakhstanskoye  
geologicheskoye upravleniye.

KUDENKO, A.A.; STETSENKO, V.P.

Possibility of using a ZnS-FeS system as a geological thermometer.  
Geokhimiya no. 11:1152-1156 N '64. (MIRA 18:8)

1. Kazakhskiy Institut mineral'nogo Syr'ya Yuzhno-Kazakhstanskoye  
geologicheskoye upravleniye.

L 12961-06  
ACC NR: AR6024934

SOURCE CODE: UR/COR1/66/000/007/E046/E047

AUTHOR: Kudenko, A. A.; Stetsenko, V. P.

TITLE: Chemical formulas of minerals

SOURCE: Ref. zh. Khimiya, Part I, Abs. 7E331

REF SOURCE: Mineralog. sb. L'vovsk. un-t, vyp. 3, no. 18, 1984, 251-256

TOPIC TAGS: chemical formula, mineral

ABSTRACT: Possible sources of error in the determination of Avogadro's number, based on the main parameters of minerals (molecular weight, density, and composition of the unit cell), are examined. Modern methods of writing chemical formulas of minerals are discussed critically, and it is suggested that the number of formula units  $Z$  be replaced by the number of ions or atoms entering into a single cell. This method is used to derive formulas for a series of minerals which are isomorphous mixtures. The formulas of polybasite  $(Ag, Cu)_{16}Sb_2S_{11}$  ( $Z = 2$ ) and Fe-sphalerite  $(Zn, Fe)S$  ( $Z = 4$ ), taking into account the number of atoms per cell, will be  $(Ag_{30}Cu_2)Sb_4S_{22}$  and  $(Zn_{3.8}Fe_{0.2})S_4$ . L. Dem'yanets. [Translation of abstract]

SUB CODE: 07,03

Cord 1/1



SHCHERBASTYEN, V.A.; MILENKO, V.V.

Automatic machine for reaming 2 holes in cast parts. 5101.  
tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekhn. inform.  
18 no.7:26-37 31 '65. (MIRA 18:9)

L 04267-67 FWI(m)/F DI  
ACC NR: AP6013315

SOURCE CODE: UR/0413/66/000/008/0134/0134

AUTHORS: Drong, I. I.; Pritaker, P. Ya.; Kustanovich, S. L.; Vakher, V. I.; Bogdanov, S. A.; Kaloyev, A. V.; Chichikov, G. L.; Stetsenko, V. V.; Vitkevich, V. B.

ORG: none

TITLE: Hydraulic amplifier for a steering mechanism of a machine on wheels. Class 63, No. 180965

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 8, 1966, 134

TOPIC TAGS: hydraulic device, hydraulic equipment, hydraulic pressure amplifier, VEHICLE COMPONENT

ABSTRACT: This Author Certificate presents a hydraulic amplifier for a steering mechanism of a machine on wheels. The amplifier is built into the steering mechanism and is connected to the steering shaft. It contains a lead element in the form of a screw, a power cylinder (with its shaft connected to a spline attached to a sector of the steering mechanism), and a distributor. The latter consists of a casing fixed on the gear box of the steering mechanism. The casing contains ducts leading to the working interior of the power cylinder and to its pressure and outflow pipes. A cylindrical valve placed in the casing is located on the steering shaft, while two stops limit the axial displacement of the steering shaft. To provide for the indication of gauge reading of the automatic steering augmented by hand steering, a distributing sleeve (which slides in respect to the cylindrical valve and to the

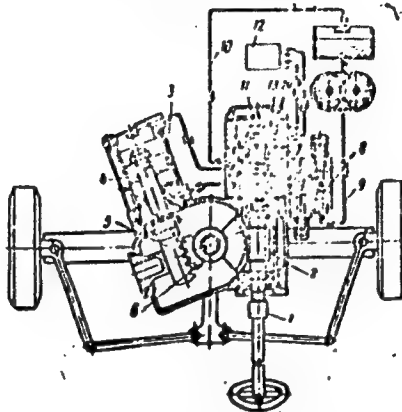
UDC: 629.113-522.5

Card 1/2

ACC NR: AP6013315

casing) is placed in the body of the distributor concentrically with the valve. The sleeve contains openings for passing of liquid and is motivated by plungers placed in the casing and connected to the gauge of automatic steering. These plungers interact with the face surfaces of washers contacting the sleeve. The washers serve as supports limiting the displacement of the sleeve in the casing (see Fig. 1).

Fig. 1. 1 - steering shaft; 2 - screw; 3 - power cylinder; 4 - shaft of the power cylinder; 5 - spline; 6 - sector of the steering mechanism; 7 - distributor body; 8 - valves; 9 - pressure duct; 10 - overflow duct; 11 - cylindrical valve; 12 - automatic steering gauge; 13 - sliding sleeve; 14 - plungers



The working displacement of the sleeve (limited by the washers) is smaller than the working displacement of the valve. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 14Apr62  
Card 2/2

20349

S/020/61/136/005/007/032  
C111/C222

/6.5400

AUTHOR: Stetsenko, V.Ya.

TITLE: K - Regular Cones

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 5,  
pp. 1038 - 1040

TEXT: The following definitions are due to M.A. Krasnosel'skiy. In the real Banach space  $E$  let be given the cones  $K_0$  and  $K$ ;  $K_0 \subset K$ . The semiorder in  $E$  is introduced with the aid of  $K$ :  $x \leq y$  if  $y - x \in K$ .  $K_0$  is called  $K$ -regular if from

$$(1) \quad x_1 \leq x_2 \leq \dots \leq x_n \leq \dots \quad (x_n \in K_0, \quad n = 1, 2, \dots)$$

$$(2) \quad x_n \leq u_0 \in K_0 \quad (n = 1, 2, \dots)$$

it follows:  $\|x_n - x_{n+p}\| \rightarrow 0$  for  $n \rightarrow \infty$ .

$K_0$  is called completely  $K$ -regular if from (1) and

$$(3) \quad \|x_n\| \leq M \quad (n = 1, 2, \dots)$$

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S/020/61/136/005/007/032  
C111/C222

# $K$ - Regular Cones

it follows that  $x_n$  is a fundamental sequence.

The case  $K_0 = K$  was considered in (Ref. 1). The author investigates the case  $K_0 \neq K$ .

$K_0$  is called  $K$ -normal if for all  $x, y \in K_0$  there exists an  $N$  so that from  $\theta \leq x \leq y$  it follows  $\|x\| \leq N \|y\|$ . Let  $K \langle v, w \rangle$  be the set of all  $x \in K_0$  for which  $v \leq x \leq w$ .

Theorem 1 (I.A. Bakhtin (Ref. 4)) : In order that  $K_0$  is  $K$ -normal it is necessary and sufficient that all sets  $K_0 \langle \theta, u_0 \rangle$ ,  $u_0 \in K_0$  are bounded.

Theorem 2 : Every  $K$ -regular cone  $K_0$  is  $K$ -normal.

Theorem 3 : If  $K_0$  is completely  $K$ -regular and  $K$ -normal then it is  $K$ -regular.

Theorem 4 : If  $K_0$  is completely  $K$ -regular then it is  $K$ -normal.

Theorem 5 : For every monotone sequence  $x_n \in K$  :  $x_1 \leq x_2 \leq x_3 \leq \dots$  which

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K - Regular Cones

K-regular. Then (6) has a solution  $x(t)$  defined on  $[0, \delta] \subset [0, a]$  and satisfying the initial condition  $x(0) = x_0$ , where  $x_0 \in K$ ,  $\langle 0, \gamma v_0 \rangle$

( $\gamma < 1$ ). The solution can be obtained by successive approximation  

$$x_{n+1}(t) = x_0 + \int_0^t f[s, x_n(s)] ds \quad (t \in [0, \delta], n=0,1,2,\dots), x_0(t) \equiv v_0$$

The author mentions M.G. Kreyn. He thanks M.A. Krasnosel'skiy for the theme and advices. There are 6 references : 5 Soviet and 1 French.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet  
(Voronezh State University)

PRESENTED: October 1, 1960, by P.S. Aleksandrov, Academician

SUBMITTED: September 30, 1960

Card 4/4

STETSENKO, V.Ya.

Geometry of cones in Banach space. Dokl. AN SSSR 137 no. 5:1067-  
1070 Ap '61. (MIRA 14:4)

1. Predstavleno akademikom P.S. Aleksandrovym.  
(Spaces, Generalized)

BAKHTIN, I.A.; KRASNOSEL'SKIY, M.A.; STIFTSENKO, V.Ya.

Continuity of linear positive operators. Sib. mat. zhur. 3  
no.1:156-160 Ja-F '62. (MIRA 15:3)  
(Operators (Mathematics))



KRASNOSEL'SKIY, M.A.; STETSENKO, V.Ya.

On certain nonlinear problems having several solutions. *Sib.mat.*  
zhur. 4 no.1:120-137 Ja-P '63. (MIRA 16:2)  
(Integral equations) (Differential equations)  
(Boundary value problems)

STETSENKO, V.Ya.

A property of solid minihedral cones in  $n$ -dimensional Banach spaces. Dokl. AN Tadzh. SSR 6 no.3:11-13 '63. (MIRA 17:4)

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Predstavleno akademikom AN Tadzhikskoy SSR S.U.Umarovym.

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Continuity of semiadditive homogeneous operators. Dokl. AN Tadjh.  
SSR 6 no.5:3-7 '63. (MIRA 17:4)

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Predstavleno akademikom AN Tadjhikskoy SSR S.U.Umarovym.

STILGENRO, A. M.

Theorem on the complete continuity of an infinite operator and some of its applications. Izv. vuz. Matematika, 1963, no. 1:3-16.

Localization of the spectrum of an infinite matrix. Ibid.:43-48

Estimation of the upper and lower bounds of the moduli of polynomial roots. Ibid.:69-76

Comments on H.G. Freil's criterion of the compactness of a cone in a Banach space. Ibid.:94-98

(MIRA 18:2)

L 45000-65 EMT(d)/T IJP(c)

ACCESSION NR AM1043734

BOOK EXPLOITATION

S/ 30  
BH

Vilenkin, N. YA.; Gorin, YE. A.; Kostyuchenko, A. G.; Kramosel'skiy, M. A.;  
Feyn, N. G.; Maslov, V. P.; Mitragin, B. S.; Potanin, M. I.; Rutitskiy,  
Y. L.; Sobolev, V. I.; Stetsenko, V. YA.; Fudakov, L. D.; Tsitlandze, E. S.

Functional analysis (Funktsional'nyy analiz), Moscow, Izd-vo "Nauka", 1964,  
424 p. biblio., index. Errata slip inserted. 17,500 copies printed. Series  
note: Spravochnaya matematicheskaya biblioteka.

TOPIC TAGS: functional analysis, mathematics, operator equation, quantum  
mechanics, Hilbert space, Banach space, linear differential equation

PURPOSE AND COVERAGE: This issue in a series of Handbooks of the Mathematical  
Library contains much material grouped basically around the theory of  
operators and operator equations. It presents the basic concepts and methods  
of functional analysis, theory of operators in Hilbert space and in conical  
space, the theory of nonlinear operator equations, the theory of standard rings  
applied to equations in partial derivatives, to integral equations. A  
separate chapter is devoted to the basic operator of quantum mechanics. Citing  
of the theory of generalized functions takes up a large part of the book. The  
book explains mathematical facts; theorems and formulas, as a rule, are given

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L 45809-65

ACCESSION NR AM1043734

without proofs. Main attention is given to concepts without excessive detail.  
The book is intended for mathematicians, mechanical engineers, and physicists.  
It contains much of value for students and graduate students.

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Ch. II. Linear operators in Hilbert space — 79  
Ch. III. Linear differential equations in Banach space — 146  
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Ch. V. Operators in space with a cone — 229  
Ch. VI. Commutative standard rings — 256  
Ch. VII. Quantum mechanics operators — 279  
Ch. VIII. Generalized functions — 323  
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NO REF SOV: 030

OTHER: 012

Card 2/2 21/

1. The first part of the report is a summary of the

information received from the source. The source is a

highly confidential source who has provided

L 45605-65 EWT(d) IJP(c)

ACCESSION NR: AR5008664

S/0044/55/000/001/B097/B097

SOURCE: Ref. zh. Matematika, Abs. 1B468

AUTHOR: Yesayan, A. R.; Stetsenko, V. Ya.

TITLE: On the convergence of successive approximations for operator equations of the second kind

CITED SOURCE: Dokl. AN TadzhSSR, v. 7, no. 2, 1964, 3-7

TOPIC TAGS: approximation method, operator equation

TRANSLATION: The convergence of the following successive approximations method is considered:

$$x_0 = g, x_{n+1} = \frac{1}{\lambda} (Ax_n + f) \quad (n=0,1, \dots) \quad (1)$$

for solving the equation

$$\lambda x = Ax + f \quad (2)$$

for values of the parameter  $\lambda$  taken from the domain of solvability of this equation; here  $A$  is the linear operator acting in the Banach space  $E$ , which is partially ordered by the cone  $K$ . If one takes as the zero approximation  $g$  the element

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ACCESSION NR: AR5008664

$\frac{1}{\lambda}f$ , the convergence of the successive approximations (1) toward the solution of equation (2) has been demonstrated by the authors in an earlier work. In the present work, the authors take sets of elements of the Banach space  $E$  which contain, in particular, the element  $\frac{1}{\lambda}f$  and which have the property that, beginning with any point in these sets, the successive approximations (1) converge to a solution of equation (2) (for values of the parameter  $\lambda$  from the domain of solvability of this equation). Ya. Mamedov.

SUB CODE: MA

ENCL: 00

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KRASNOSEL'SKIY, M.A.; STETSENKO, V.Ya.

Symposium at Dushanbe. Usp. mat. nauk 19 no.5:215-228 S-O '64.  
(MIRA 17:11)

YUSSEIN, A.R.; MURTEZOV, V.Ia.

Determinations of the spectrum of integral operators and  
infinite matrices. Dokl. AN SSSR 157 no. 2:254-257 J1 '64.  
(MIRA 17:7)

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akademikom A.Yu.Ishlinskiy.

STETSSENKO, V. Ya.

Determining the spectrum of certain classes of linear  
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(MIRA 17:9)

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Predstavleno akademikom A.N. Kolmogorovyn.